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Conversation with Water Management Reps  
from Colorado and Australia: "Adapting to  
Climate Change: Lessons Learned from  
Australia" (February 14)

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2011

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### SLIDES: Adapting to Climate Change: Lessons Learnt from the Australian Water Experience

Will Fargher

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#### Citation Information

Fargher, Will, "SLIDES: Adapting to Climate Change: Lessons Learnt from the Australian Water Experience" (2011). *Conversation with Water Management Reps from Colorado and Australia: "Adapting to Climate Change: Lessons Learned from Australia" (February 14)*.

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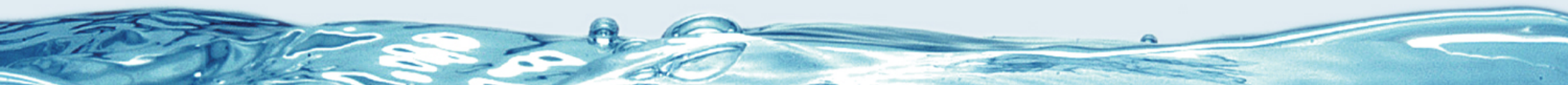
Australian Government  
National Water Commission

# **Adapting to climate change: Lessons learnt from the Australian water experience**

**Presentation at the University of Colorado (the Buffalos)**

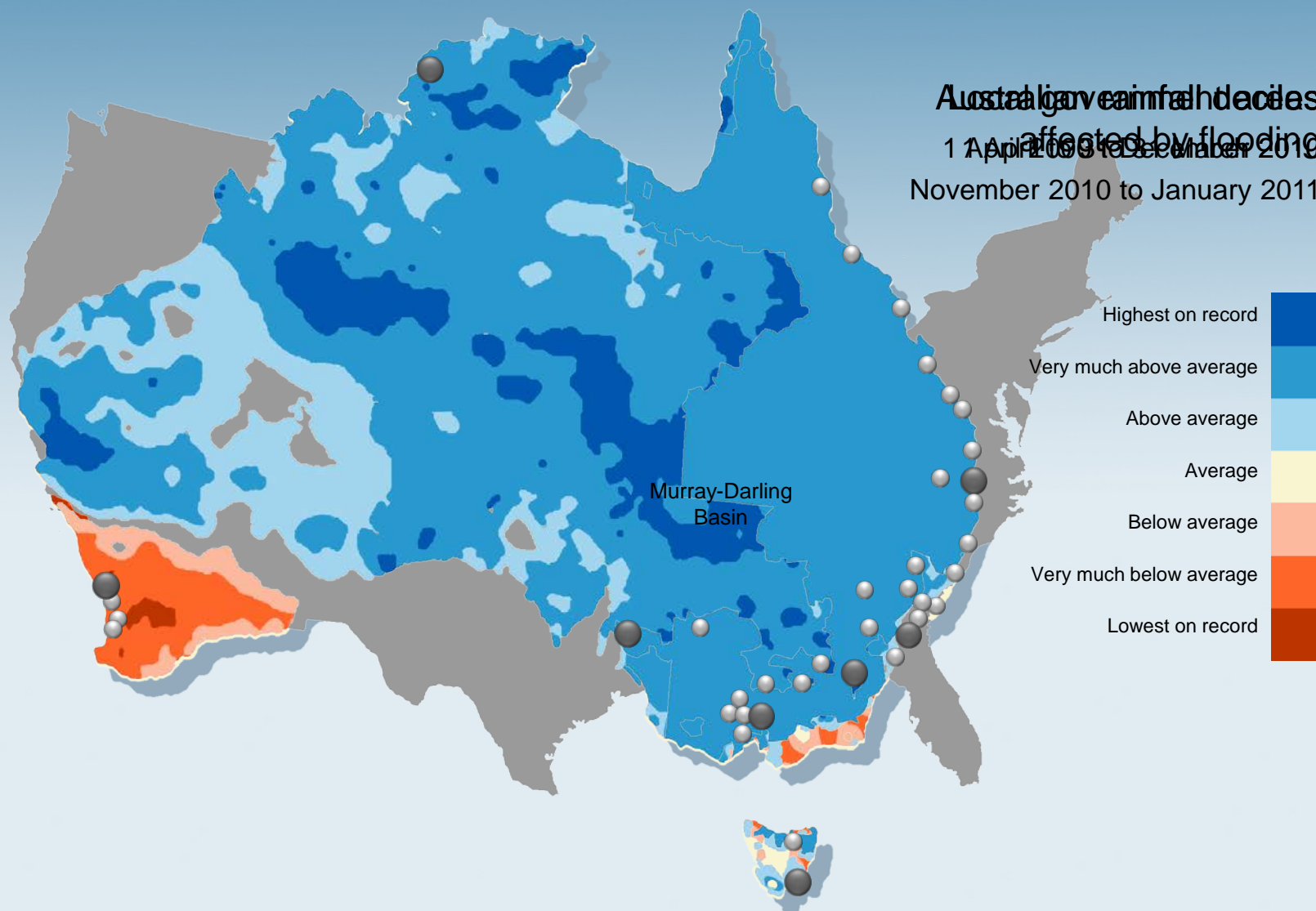
**14 February 2010**

**Will Fargher, National Water Commission**



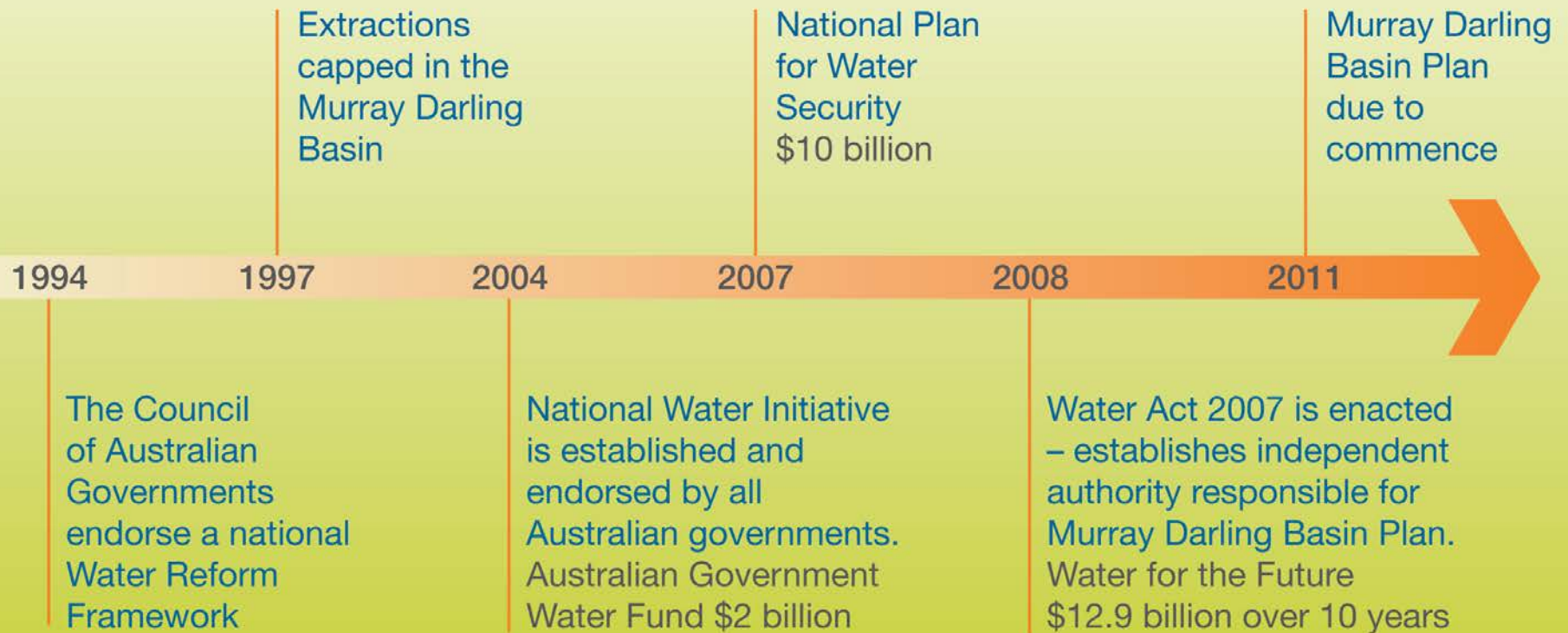


# Australia's water resources





# National policy developments

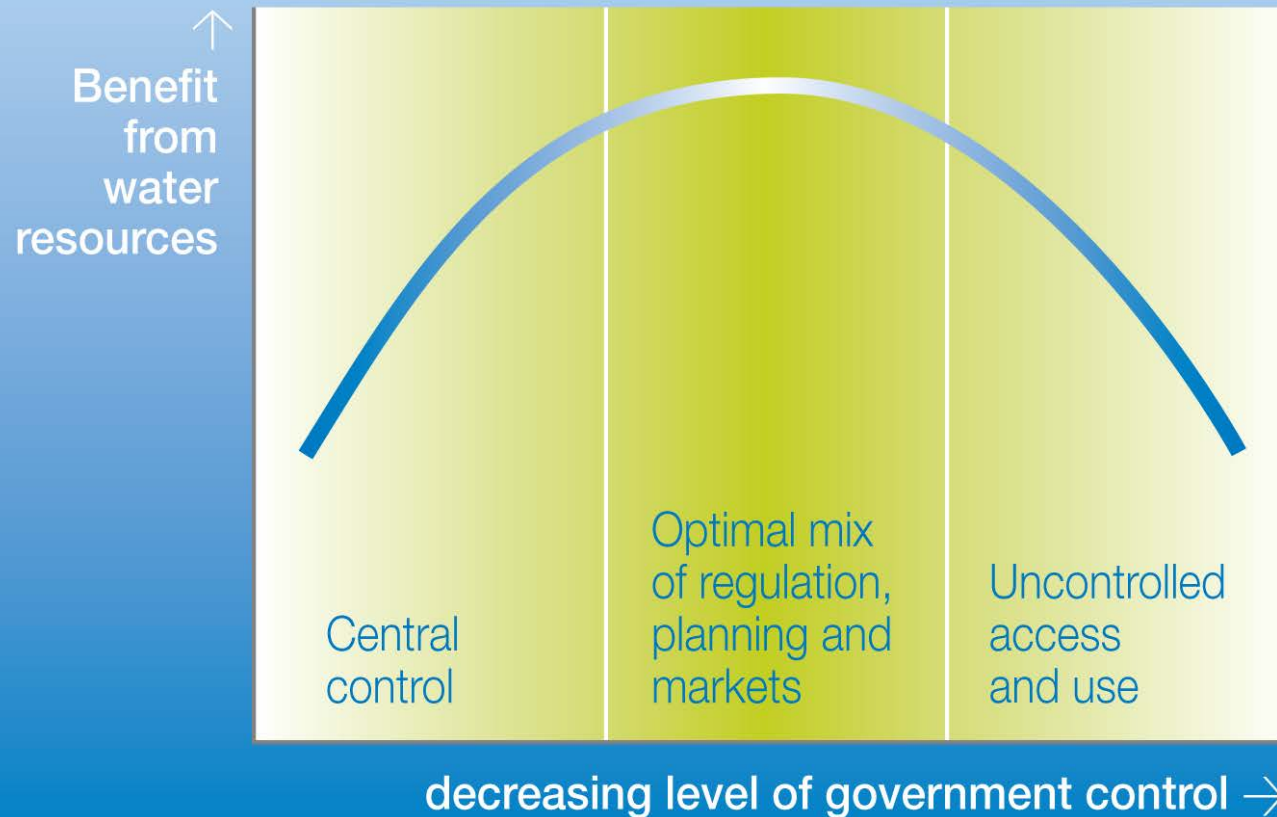




# A nationally compatible market, regulatory and planning based system



Australian Government  
National Water Commission



# Fundamental NWI reforms

- Unbundled water rights and markets
  - Clarity and security; efficient allocation; flexibility during challenging times
- Pricing and best practice institutional arrangements
  - Encourage efficient and sustainable water use; promote efficient investment; encourage innovation and ensure appropriate service delivery; manage externalities
- Environmental water management
  - Plans to include clear and measurable objectives and associated water required; secure entitlements; accountability in management and reporting



# Some Commission assessment and information products



## Biennial Assessment of Australian Water Reform

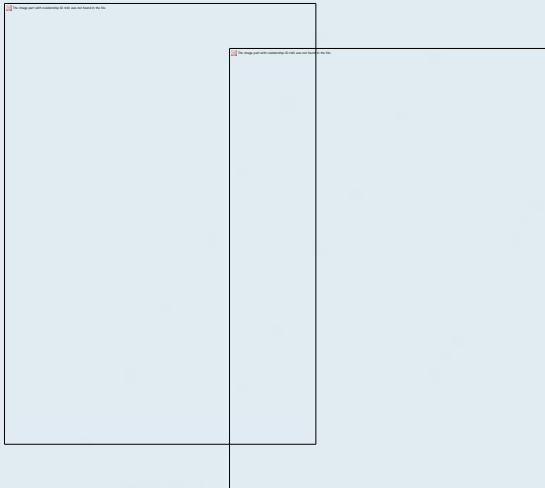
- First published in 2007
- Provides independent assessment of progress in water reform



## Australian Water Markets Report

- Published annually (2008, 2009, 2010)
- Statement of market trends and activities
- Market performance as an institution

## National Performance Reports (NPR)

- 
- Published annually (2007, 2008, 2009)
  - Reports on performance urban and rural water service providers

## Impacts of water trading in the sMDB

- 
- Published 2010
  - Assessment of economic, social and environmental impacts in southern MDB
  - Produced again in 2012

# Achievements of tradable entitlements and markets

- Secure and transferable entitlements
- Major benefits in managing the drought, facilitating autonomous adjustment, accessing finance, and encouraging investment
- Realising benefits at farm, industry and regional level
- Total trade in 2009-10 of around \$3 billion
- Around 13% of total entitlement volume was traded in Australia in 2009-10

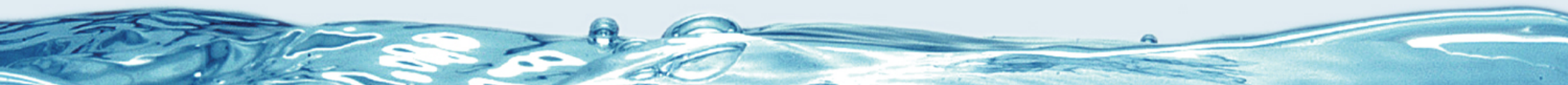




# Water entitlement reform



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# Water trading



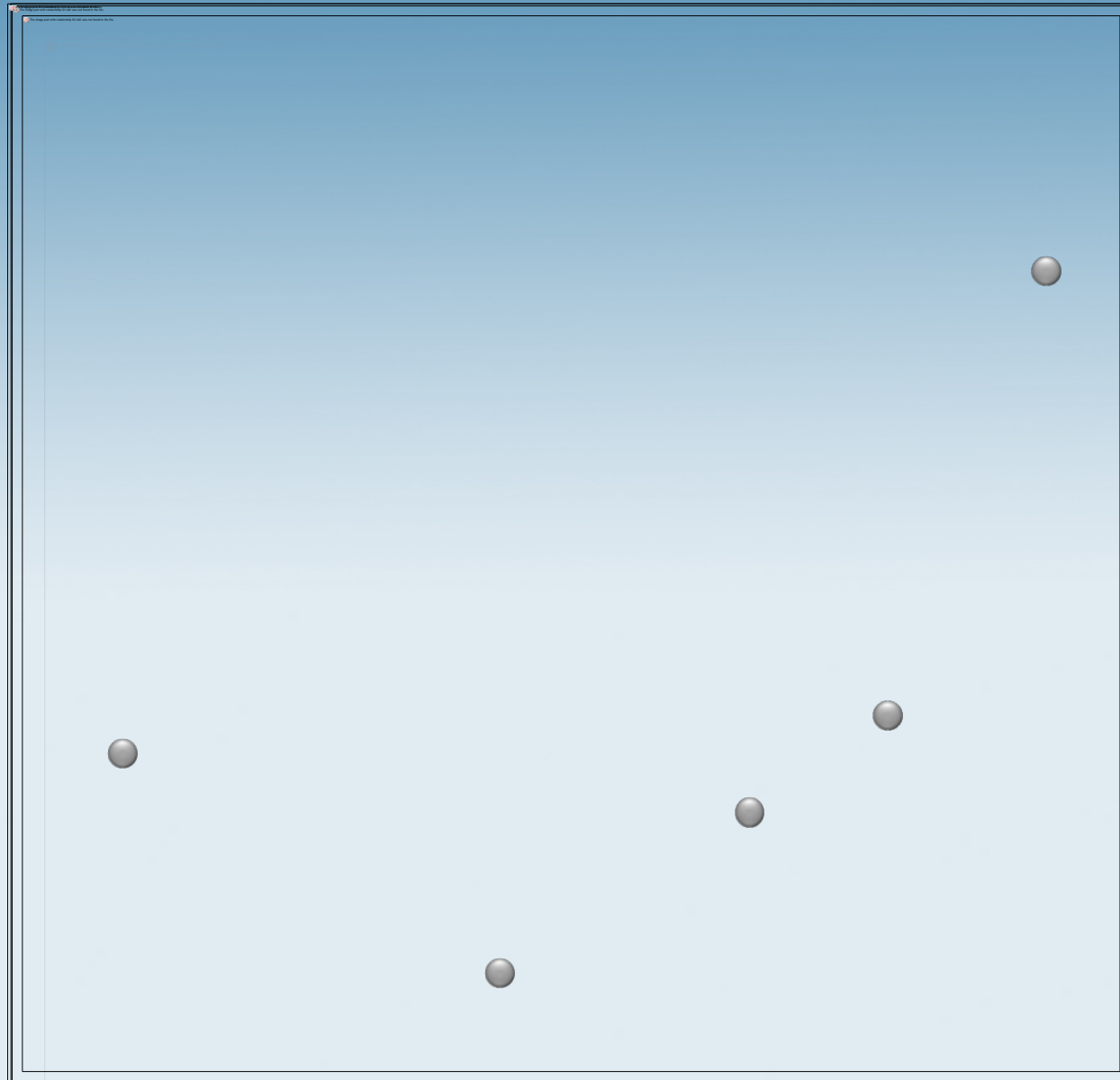
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National Water Commission



# The Murray-Darling Basin

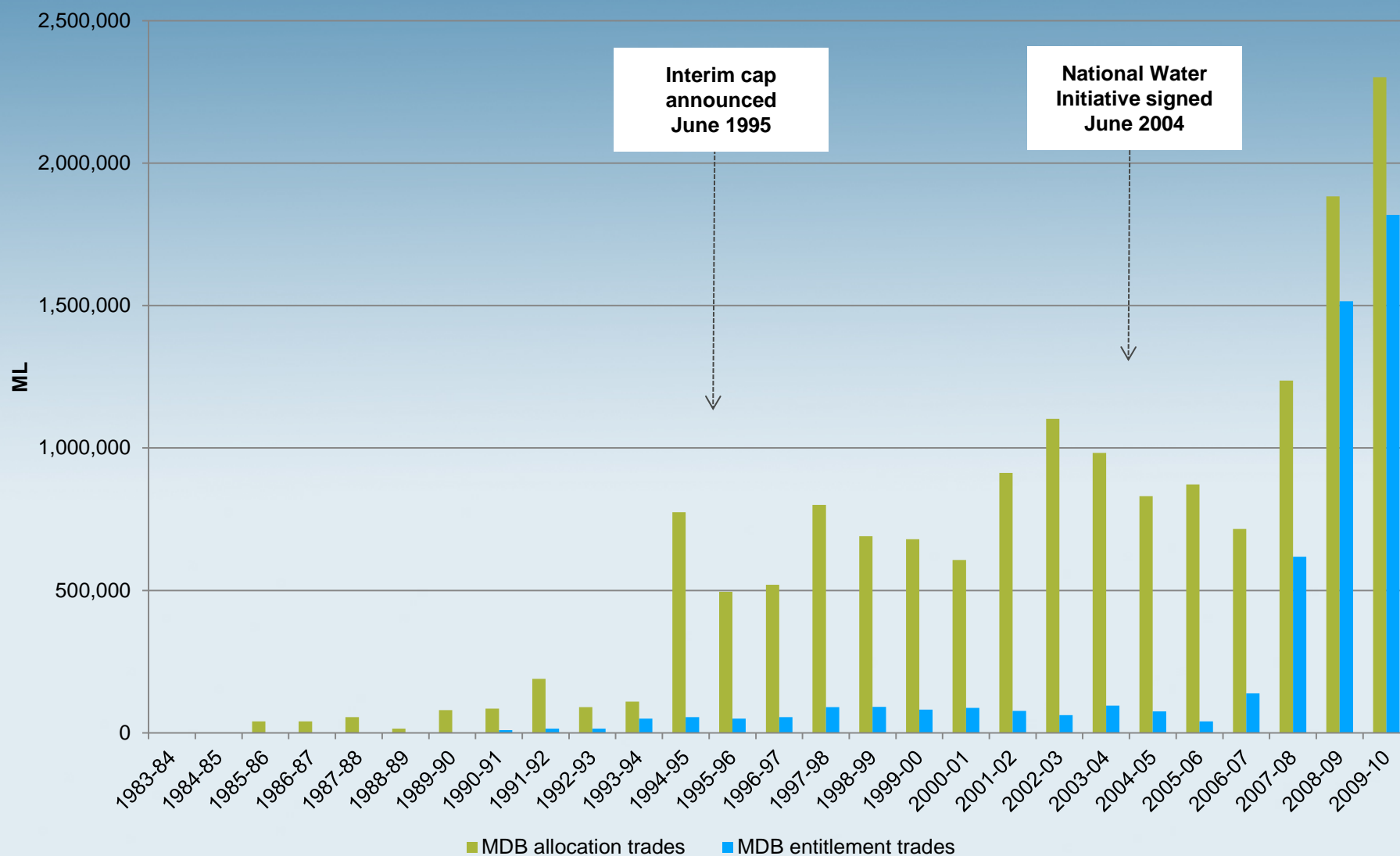


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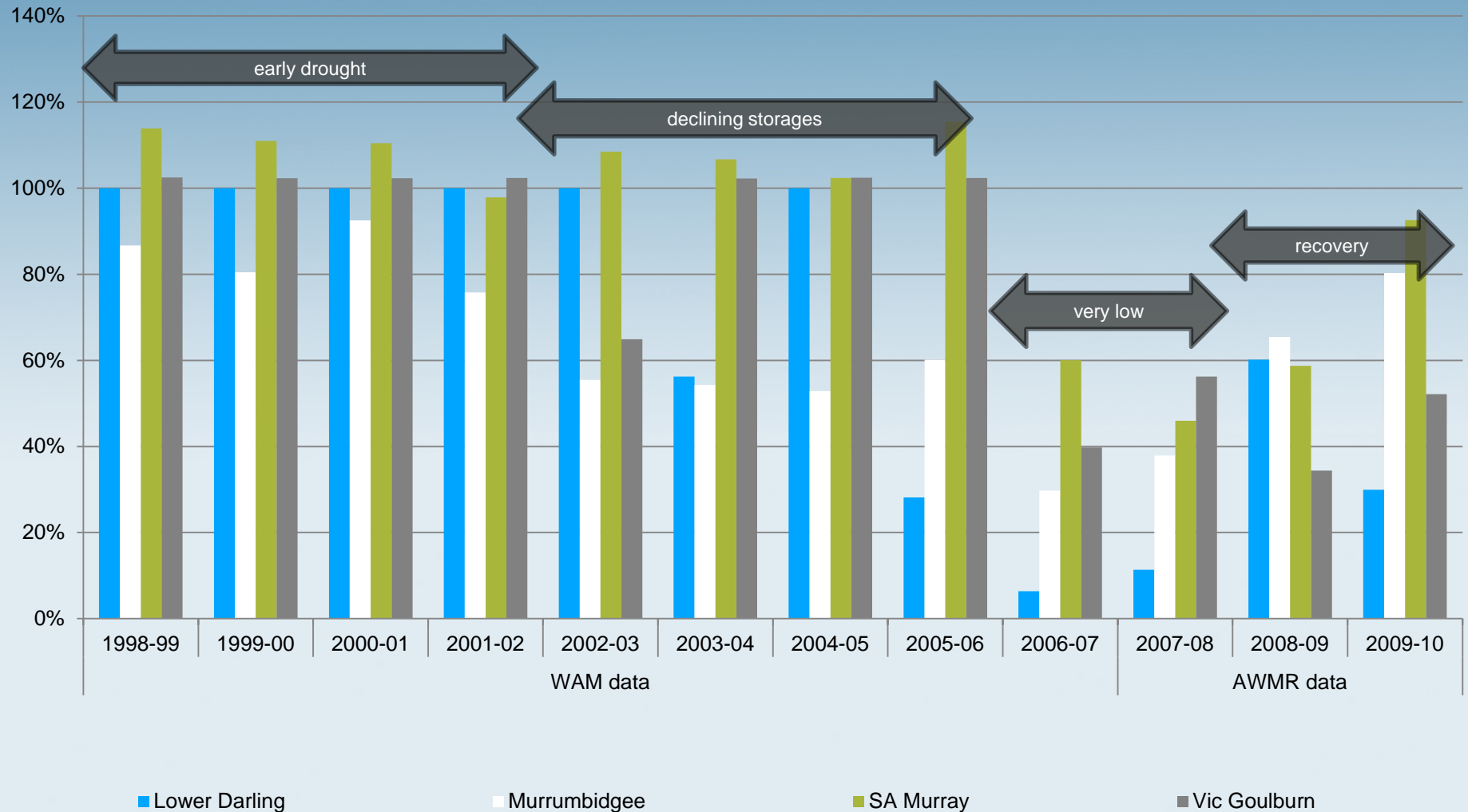
# Water trading in the MDB







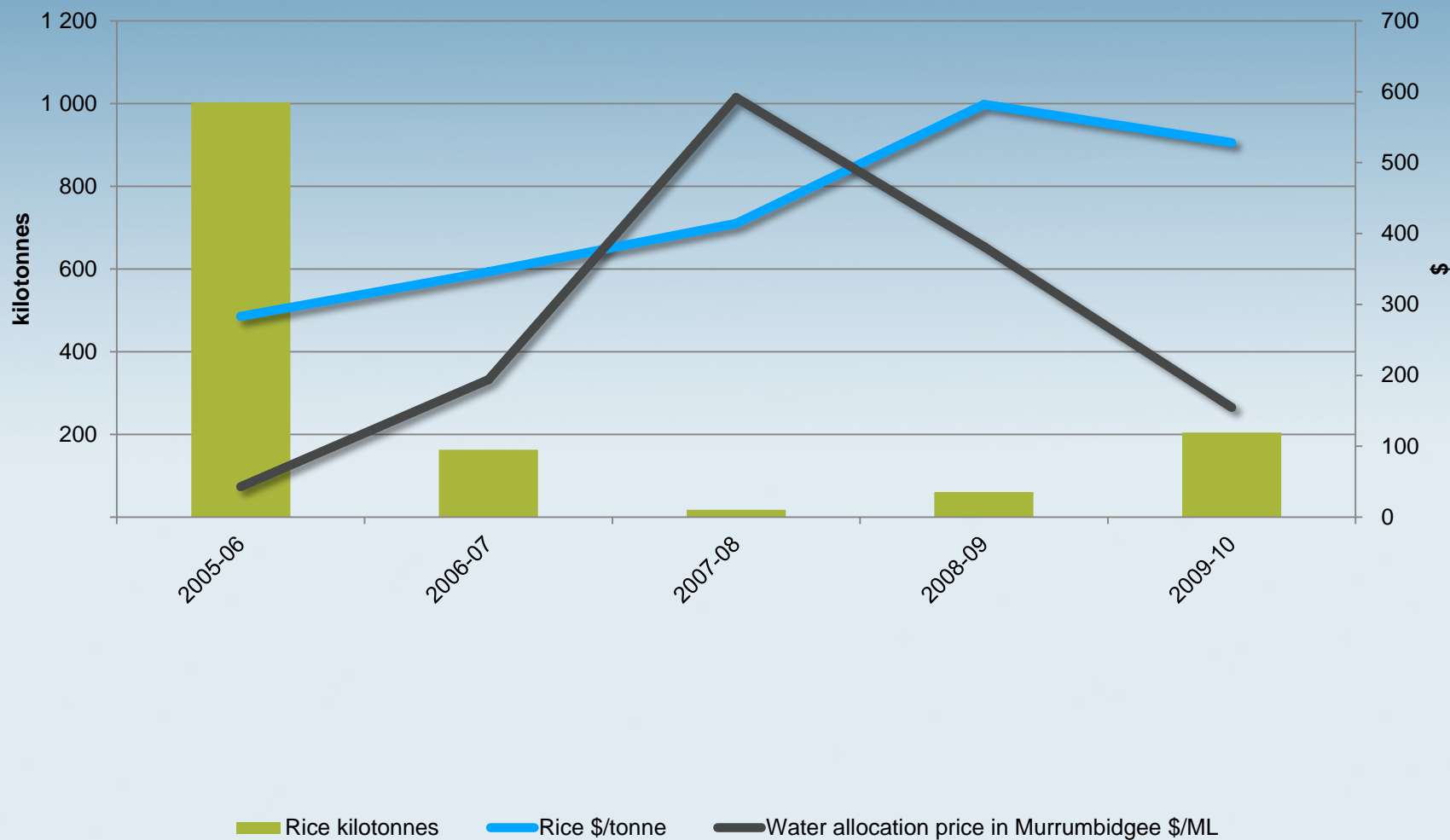
# MDB allocations 1998-99 – 2009-10



# Southern MDB allocation levels and proportion traded

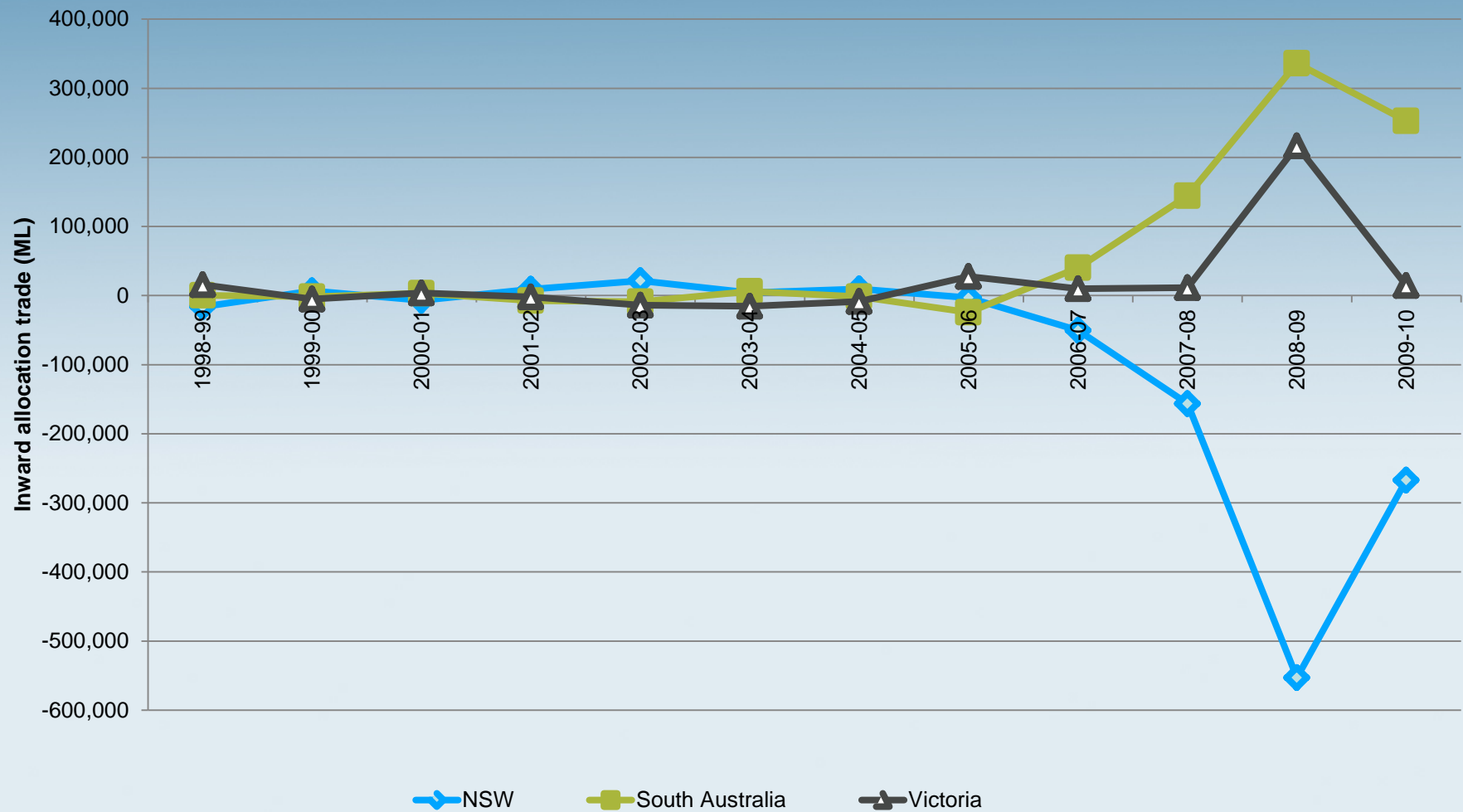


# Murrumbidgee rice production and price, and water allocation price





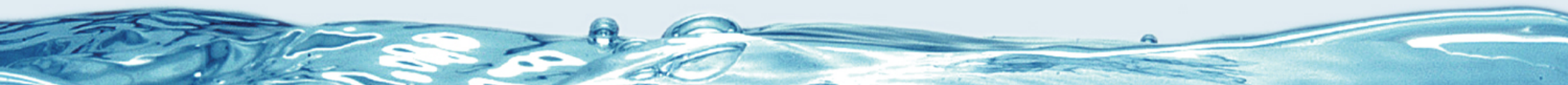
# Net interstate allocation trade





# Achievements of best practice pricing and institutional reforms

- Separation of policy, regulatory, service delivery functions
- Prices set independently to recover efficient costs and return on investment
- Increased transparency; cross-subsidies largely eliminated
- Elimination of allowances and property value based charges
- Application of two part tariff; uniform usage charge applying to all water used and based on long run marginal cost
- Efficiency improvements and greater utilisation of capital enabled real price reductions in 1990s
- Profitability has improved and businesses can expect a commercially viable return





# Urban water capital expenditure



Total water and wastewater capital expenditure (\$000) 2003–04 to 2008–09



# Achievements of environmental reforms

- Increased awareness of environmental water
- Improved water plans to promote environmental water management
- A view expressed on how much is needed for sustainability (versus how much can be spared)
- Institutional arrangements in place for
  - Environmental water managers
  - Purchase of entitlements for environmental purposes

